

## SEQUENCE LISTING

<110> Temasek Life Sciences Laboratory

<120> NUCLEIC ACIDS FROM RICE CONFERRING RESISTANCE TO BACTERIAL BLIGHT DISEASE CAUSED BY XATHOMONAS SPP

<130> 2577-160

<160> 52

<170> PatentIn version 3.1

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<221> Dominant (Resistant) allele of the Xa31 genomic clone from IRBB31

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<213> *Oryza sativa*

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&lt;223&gt;

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<213> Artificial Sequence

<220>

<223> primer

<400> 14  
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<210> 15

<211> 21

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<220>

<223> primer

<400> 15  
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<210> 16

<211> 23

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<220>

<223> primer

<400> 16  
cccagcaagg ccatatcccg aca 23

<210> 17

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 17

tccacgcctt agtctcgccg t

21

<210> 18

<211> 30

<212> DNA

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<223> oligonucleotide

<400> 18

aagcagtggg atcaacgacg agtacgcggg

30

<210> 19

<211> 57

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<220>

<221> misc\_feature

<222> (57)..(57)

<223> n = a, t, c, or g

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<213> Artificial Sequence

<220>

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<400> 20  
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<210> 22

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<400> 22  
accttgcgta gccctactcc tg 22

<210> 23  
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<220>  
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 <222> (49)..(49)  
 <223> n= a, t, c, or g

<220>  
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 <223> n= a, t, c, or g

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27

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23



<210> 25

<211> 45

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<220>

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<400> 25

ctaatacgac tcactatagg gcaagcagtg gatatcaacgc agagt

45

<210> 26

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 26

ctaatacgac tcactatagg gc

22

<210> 27

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 27

acacacagat ccgtactcaa ctcc

24

<210> 28

<211> 38

<212> DNA

<213> Artificial Sequence

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<223> primer

<400> 28

gaccacgcgt atcgatgtcg accttttttt tttttttt

38

<210> 29

<211> 24

<212> DNA

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<220>

<223> primer

<400> 29

gagagcatca gagcaaagta ctcc

24

<210> 30

<211> 22

<212> DNA

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<223> primer

<400> 30

gaccacgcgt atcgatgtcg ac

22

<210> 31

<211> 14

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<213> Artificial Sequence

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<220>

<221> misc\_feature

<222> (1)..(1)

<223> n = a, g, c, or t

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14

<210> 32

<211> 16

<212> DNA

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<220>

<223> primer

<220>

<221> misc\_feature

<222> (1)..(1)

<223> n = a, g, c, or t

<220>

<221> misc\_feature

<222> (11)..(11)

<223> n = a, g, c, or t

<400> 32

ngtcgaswga nawgaa

16

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<222> (5)..(5)  
<223> n = a, g, o, or t

<220>  
<221> misc\_feature  
<222> (10)..(10)  
<223> n = a, g, c, or t

<220>  
<221> misc\_feature  
<222> (13)..(13)  
<223> n = a, g, c, or t

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16

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<221> misc\_feature

<222> (1)..(1)

<223> n = a, g, c, or t

<220>

<221> misc\_feature

<222> (11)..(11)

<223> n = a, g, c, or t

<400> 34

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16

<210> 35

<211> 16

<212> DNA

<213> Artificial Sequence

<220>

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<222> (5)..(5)

<223> n = a, g, c, or t

<220>

<221> misc\_feature

<222> (10)..(10)

<223> n = a, g, c, or t

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16

<210> 36

<211> 16

<212> DNA

<213> Artificial Sequence

<220>

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<220>

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<222> (5)..(5)

<223> n = a, g, c, or t

<220>

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<222> (10)..(10)

<223> n = a, g, c, or t

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<221> misc\_feature

<222> (13)..(13)

<223> n = a, g, c, or t

<400> 36  
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16

<210> 37

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 37

acgttgtaaa acgacggcca gt

22

<210> 38

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 38

gtaatacgac tcactatagg gcga

24

<210> 39

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 39

gagtcgacct gcaggcatgc a

21

<210> 40

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 40

cttcgggtc gtatgttg tg

23

<210> 41

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<212> DNA

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<220>

<223> primer

<400> 41

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25

<210> 42

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 42

ttaggtgaga ctatagaata ctca

24

<210> 43

<211> 25

<212> DNA

<213> Artificial Sequence



<220>

<223> primer

<400> 43

taacaacatg agaattacta atccg

25

<210> 44

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 44

catgtatcca agttcgtagc tag

23

<210> 45

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 45

ttgggtttttt tgaatgaagg gtatat

26

<210> 46

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 46  
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<210> 47

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 47  
ctgaaacaca ggaaaaatcc cgtt 24

<210> 48

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 48  
tgcataaggcc ctgtttagtt ctaa 24

<210> 49

<211> 1552

<212> DNA

<213> Oryza sativa

<220>

<221> Xa31 promoter of IRBB31 allele (resistant allele)

<222> (1)..(1552)

<223>

&lt;220&gt;

&lt;221&gt; Xa31 promoter of IRBB31 allele (resistant allele)

&lt;222&gt; (1)..(1552)

&lt;223&gt;

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<400> 49
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tctacaaaaa ttggaatttt ggatgatggt cttttaaaaa ctcgattgca ggaataaaat 180
tttacggcctt gaaacttaca aaatgattag aaaagataac atgcctcagc gatttgtaaa 240
aaagtgaaca aataaaaatc tacaatacca ctaaactatt gctttatttt ggggacattg 300
cttaccattg aaaaaacaac taaccgtaaa tacgaacacc catatcaaat atactatcac 360
tgataaaata atcaattgta aattcaagca cacatattag tatagtactt taactcgatt 420
ggatagaaga aacctacta atttaagcta tgcctcacia caaaaaggta taaatTTTTT 480
aaggcttctt ttttttctt gcgtttgcta gtttatgctt ttaagatggt tatacctttt 540
actccqctca ttactgttt aaatacaatg ggaacttagt aaatcaatga gagtccaac 600
ctcgaaacac tgaatacatg ttattcttga ttgaaatcaa atcgaatcag tcaaattcaa 660
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cactagatca ggctagagct tcaaattcaa ctccaaaaac ctccgtaaag tggcacacac 960
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gaatctattg agccraatta atccatgatt agcctatgtg atgctatcat aaacattctc 1260
taattataaa ttaattgggc ttaaaaaatt tgtctcgcgt attagctttc atttatataa 1320
ttagttttat aaatagtcta tatttaatac tctaatttag tgtctaaata cagggaactaa 1380

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agttaagtca ctggatccaa acaccaccta aggtttttctt gtgtacttgt gaattgtggt 1440
tgactacgac tactagtgtc ataaatagaa gaagagaccc atagagagca tcagagcaaa 1500
gtactcctaa aagacagcca cacacactga gacacccaaag aagctgcctc ca 1552

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<210> 50

<211> 541

<212> DNA

<213> *Oryza sativa*

<220>

<221> Xa31 3' regulation region of IRB31 allele (resistant allele)

<222> (1)..(541)

<223>

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gatctgtgtg tactgcattc ttgcttaatt agtgccctac acgttatgct ttcgaaacat 120
aatctttttt cagtatagtt caataaattt cagctcaaat ttgtcctcca agacgagttc 180
tccatccaaa cgaaacttat ggtgttccgt tgtttgggct gattttatat gttggaaatg 240
tacagacttc atagtactgt gtttcttttt tggaaataagt tcaccagagg ttctttaact 300
taacggcgat attttttttag gtcctttaac cacaaaacca gaaatgtgca cccctaaact 360
ttcacaatcc gtgcacaaga ggtcctatgg cagtatacgt ggggtggttc gctgacgtga 420
catcctagtc agcaaaaaata aataaataag taagtggggc ccataatgta gtgagagaaa 480
acgatgcggg cccacacatc cttctttttt cccctttctt ctctctctgt cttcttcgac 540
g 541

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<210> 51

<211> 1583

<212> DNA

<213> *Oryza sativa*

&lt;220&gt;

&lt;221&gt; xa31 promoter of IR24 allele (susceptible allele)

&lt;222&gt; (1)..(1583)

&lt;223&gt;

&lt;400&gt; 51

gctgaaccaa acagtttttag ctccatcgaa gaaaggagtt atactgattg gaatgctcac	60
agttaaaaaa aacaagggaag tagagctgga ttttagacag ttctataaga agttagaact	120
ctaccaaacg gatagttaat tggaattttg gatgatggtc ttttaaaaac tcgattgcag	180
gaataaaatt ttacggcttg aaacttacaa aatgattaga aaagataaca tgcctcagcg	240
at ttgtaaaa aagtgaacaa ataaaaatct acaataccac taaactattg ctttattttg	300
gggacattgc ttaccattga aaaaacaact aaccgtaaat acgaacaccc atgtcaaata	360
tactatcact gataaaataa tcaattgtaa attcaagcac acatattagt atagtacttt	420
aactcgattg gatagaagaa acctaactaa ttttaagctat gcctcacaac aaaaagggtat	480
aaatttttta aggcttcttt ttttttcttg cgttcgctag tttatgcttt taagatgttt	540
ataattttta ctccctcat tcaactgttta aatacaatgg gaattagtga aatcaatgag	600
agttcaaaact tcgaaacact gaatacatgt tat ttttggat tgaaatcaaa tcgaatcagt	660
caaattcaaa taggaggagg aacataggca ttcttctttt cttcagcggg oacaaattgaa	720
ttcagatact gortcgcccta gtctctgtcc aagactccac attttctgat ggtgatgggg	780
aactctgaaa ctataggagg aagaataaaa tgaagaatgc agaatgaat agtaatttgt	840
gttttttaaat tcttcttcaa ttccacotta ggatccaact tcagtccaaa tccaaagtaa	900
tgcaactgcc actagatcag gctagagctt caaattcaac tccaaaaacc tccgtaaagt	960
ggcacacaca gaggaaaaat cctggattcg tcaactgccc tcaacatctg ctttcgcctc	1020
ccaattcctg ctttctgaaa tctgctttcg ccgaattcat gccttcttga attatgcttt	1080
cttagacoot ctttagatga gactaaaact ttactctct atcacatcgg atgtttggac	1140
actaattata aatatataac gtagactatt aataaaaacc atctataatc ttgtattaat	1200
tcgggtgacg aatctattga gcctaattaa tccatgatta gcctatgtga tgctataata	1260
aacattctct aattataaat taattgggct taaaaaattt gtctcgcgta ttagctttca	1320
tttatgtaat tagttttata aatagtctat atttaatact ctaaattagt gtctaataac	1380

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agggactaaa gttaagtccc tggatccaaa cgccaccta ggttttcttg tgtacttgtg 1440
aattgtgggtt tcttgtgtac ttgtgaattg tggttgacta cgactacgag tgctataaat 1500
agaagagacc aatagagagc atcagagcaa agtactccta aaagacagcc acacacactg 1560
agacacccaa gaagctgcct cca 1583

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<210> 52

<211> 541

<212> DNA

<213> Oryza sativa

<220>

<221> xa31 3' regulation region of IR24 allele (susceptible allele)

<222> (1)..(541)

<223>

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<400> 52
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catctrtttt cagtatagtt caataaatTT cagctcaaat ttgtcttcca agacgagttc 180
tccatccaaa cgaaacttat ggtgttccgt tgtttgggccc gattttatat gttggaaatg 240
tacagacttc atagtactgt gtttcttttt tgggaataagt tcaccagagg ttctttaact 300
taacggcgat atttttttag gtcctttaac cacaaaacca gaaatgtgca cccctaaact 360
ttcagaatoc gtgcacaaga ggtcctatgg cagtatacgt ggggtggttct gctgacgtga 420
catcctagtc agcaaaaata aataaataag taagtggggc ccatatgtaa gtgagagaaa 480
acgatgcggg cccacatcc cttctttttt cccctttctt ctctctcgt cttcttcgac 540
g 541

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